

## Acute Toxicity to Wolf Spider (Non-guideline)

**MRID:** 45455003

**Chemical Name:** Pyraclostrobin

**PC Code:** 099100

**EPA DP Barcode:** D418951

**Test Material:** BAS 500 00F

**Purity:** Pyraclostrobin (23%)

**Citation:** Kuhner, C. 1999. BAS 500 00F: acute toxicity to the wolfspider, *Pardosa spp.* (Araneae, Lycosidae) in the laboratory. Lab project number: 98066/01-NLPA: 1999/10517. Unpublished study prepared by GAB Biotechnologie GmbH & IFU Umweltanalytik GmbH.

**Study Summary:** Wolf spiders (*Pardosa spp.*) were exposed to pyraclostrobin via treated soil at an application rate of 0.28 lb ai/A for 14 days. Negative controls received tap water in lieu of the test substance, and *lambda*-cyhalothrin was used as a positive control at a rate of 0.0001 lb ai/A. Wolf spiders were collected 1 to 3 weeks before the beginning of the experiment; three days before the start of the experiment, the spiders were fasted. Each treatment group had two replicates of 10 (10 adult/sub-adult females and 10 adult/sub-adult males). Each spider was housed in its own plastic container (11.5 x 11.5 x 6 cm) filled with moist sand (125 g sand moistened with 23 mL of water). Observations for mortality and sub-lethal effects were made at 2, 4, and 6, hours after exposure and 1, 3, 6, 8, 10, 13, and 14 days after exposure. Spiders were fed two *Delia* flies on day 0, 1, 3, and 10 after exposure; on day 6, 8, and 13, each living spider received one *Delia* fly. At each feeding, the fly remnants from the previous feeding were removed and the number of living versus "eaten" flies was quantified.

There were no statistically significant differences between the mortality or feeding rates of the wolf spiders in the pyraclostrobin treatment group when compared with the negative control group (Table 1). No sub-lethal effects were observed in the negative control or pyraclostrobin treatment groups. The positive control group exhibited paralysis two hours after initial exposure.

Table 1. Wolf spider observations after exposure to pyraclostrobin-treated soil

Endpoint	Negative Control	Pyraclostrobin (0.28 lb ai/A)	Positive Control: <i>lambda</i> -cyhalothrin (0.0001 lb ai/A)
Mortality (percent)	10	10	75
Food Consumption (average number of flies consumed)	8.1	7.3	4.3

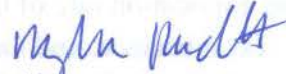
**Validity Criteria:** The study met the criteria of less than 10% mortality in the negative control group and greater than 50% mortality in the positive control group.

**Classification:** Supplemental because the non-guideline study does not fulfill a data requirement.

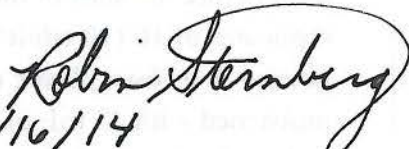
**Reviewer Comments:**

- This study was conducted according to Good Laboratory Practices (OECD) and BBA Guideline VI/23-2.3.4 (Heimann-Detlefsen, 1991).
- The study is scientifically valid.
- This study is useful for qualitative purposes and demonstrates no effects on wolf spiders exposed to pyraclostrobin-treated soil at an application rate of 0.28 lb ai/A.

**Primary Reviewer:** Meghan Radtke, Ph.D.  
Biologist, USEPA/EFED/ERB-1

**Signature:**   
**Date:** 5/16/14

**Secondary Reviewer:** Robin Sternberg  
Wildlife Biologist, USEPA/EFED/ERB-1

**Signature:**   
**Date:** 5/16/14

Test Group	Application Rate (lb ai/A)	Number of Spiders	Number of Spiders Surviving	Mortality (%)
Negative Control	0.28	10	10	0
Positive Control	0.28	10	5	50
Pyralis-4	0.28	10	10	0
Pyralis-2	0.28	10	10	0
Pyralis-1	0.28	10	10	0